Andrew A Khomich

List of Publications by Year
in descending order

83 papers	1,509 citations	331259 21 h-index	360668 35 g-index
84 all docs	84 docs citations	84 times ranked	1536 citing authors

#	Article	IF	Citations
1	Efficient nitrogen doping of graphene by plasma treatment. Carbon, 2016, 96, 196-202.	5.4	136
2	Nitrogen Control in Nanodiamond Produced by Detonation Shock-Wave-Assisted Synthesis. Journal of Physical Chemistry C, 2011, 115, 14014-14024.	1.5	86
3	High-rate growth of single crystal diamond in microwave plasma in CH4/H2 and CH4/H2/Ar gas mixtures in presence of intensive soot formation. Diamond and Related Materials, 2016, 62, 49-57.	1.8	77
4	Coreâ€"shell designs of photoluminescent nanodiamonds with porous silica coatings for bioimaging and drug delivery I: fabrication. Journal of Materials Chemistry B, 2013, 1, 2358.	2.9	66
5	Si-doped nano- and microcrystalline diamond films with controlled bright photoluminescence of silicon-vacancy color centers. Diamond and Related Materials, 2015, 56, 23-28.	1.8	66
6	Photoluminescence of SiV centers in single crystal CVD diamond <i>in situ</i> doped with Si from silane. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2525-2532.	0.8	65
7	Observation of the Ge-vacancy color center in microcrystalline diamond films. Bulletin of the Lebedev Physics Institute, 2015, 42, 165-168.	0.1	51
8	Fracture strength of optical quality and black polycrystalline CVD diamonds. Diamond and Related Materials, 2012, 23, 172-177.	1.8	48
9	Highâ€Pressure Synthesis of Boronâ€Doped Ultrasmall Diamonds from an Organic Compound. Advanced Materials, 2015, 27, 5518-5522.	11.1	48
10	Express in situ measurement of epitaxial CVD diamond film growth kinetics. Diamond and Related Materials, 2017, 72, 61-70.	1.8	45
11	High-rate ultrasonic polishing of polycrystalline diamond films. Diamond and Related Materials, 2016, 66, 171-176.	1.8	36
12	Diamond-EuF 3 nanocomposites with bright orange photoluminescence. Diamond and Related Materials, 2017, 72, 47-52.	1.8	33
13	Damage accumulation in diamond during ion implantation. Journal of Materials Research, 2015, 30, 1583-1592.	1.2	32
14	Picosecond-laser-induced structural modifications in the bulk of single-crystal diamond. Applied Physics A: Materials Science and Processing, 2011, 105, 673-677.	1.1	30
15	Direct observation of graphenic nanostructures inside femtosecond-laser modified diamond. Carbon, 2016, 102, 383-389.	5.4	30
16	Epitaxial growth of mosaic diamond: Mapping of stress and defects in crystal junction with a confocal Raman spectroscopy. Journal of Crystal Growth, 2017, 463, 19-26.	0.7	30
17	Peculiarities of laser-induced material transformation inside diamond bulk. Diamond and Related Materials, 2013, 37, 50-54.	1.8	26
18	Gas-phase growth of silicon-doped luminescent diamond films and isolated nanocrystals. Bulletin of the Lebedev Physics Institute, 2011, 38, 291-296.	0.1	24

#	Article	IF	Citations
19	Plateholder design for deposition of uniform diamond coatings on WC-Co substrates by microwave plasma CVD for efficient turning application. Diamond and Related Materials, 2017, 75, 169-175.	1.8	24
20	Morphology of Diamond Layers Grown on Different Facets of Single Crystal Diamond Substrates by a Microwave Plasma CVD in CH4-H2-N2 Gas Mixtures. Crystals, 2017, 7, 166.	1.0	24
21	Etching Kinetics of (100) Single Crystal Diamond Surfaces in a Hydrogen Microwave Plasma, Studied with In Situ Lowâ€Coherence Interferometry. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700177.	0.8	22
22	Diamondâ€"Rare Earth Composites with Embedded NaGdF₄:Eu Nanoparticles as Robust Photo- and X-ray-Luminescent Materials for Radiation Monitoring Screens. ACS Applied Nano Materials, 2020, 3, 1324-1331.	2.4	20
23	Fabrication of diamond microstub photoemitters with strong photoluminescence of SiV color centers: bottom-up approach. Applied Physics A: Materials Science and Processing, 2015, 118, 17-21.	1.1	19
24	Growth of 4â€³ diameter polycrystalline diamond wafers with high thermal conductivity by 915 MHz microwave plasma chemical vapor deposition. Plasma Science and Technology, 2017, 19, 035503.	0.7	18
25	Very long laser-induced graphitic pillars buried in single-crystal CVD-diamond for 3D detectors realization. Diamond and Related Materials, 2018, 90, 84-92.	1.8	18
26	Diamond Detector With Laser-Formed Buried Graphitic Electrodes: Micron-Scale Mapping of Stress and Charge Collection Efficiency. IEEE Sensors Journal, 2019, 19, 11908-11917.	2.4	18
27	Diamond-germanium composite films grown by microwave plasma CVD. Carbon, 2022, 190, 10-21.	5.4	17
28	Nano-carbon pixels array for ionizing particles monitoring. Diamond and Related Materials, 2017, 73, 132-136.	1.8	16
29	On the thermal conductivity of single crystal AlN. Journal of Applied Physics, 2020, 127, 205109.	1.1	16
30	Radiation Damage Effects on Optical, Electrical, and Thermophysical Properties of CVD Diamond Films. Journal of Applied Spectroscopy, 2013, 80, 707-714.	0.3	15
31	Laser-induced local profile transformation of multilayered graphene on a substrate. Optics and Laser Technology, 2015, 69, 34-38.	2.2	15
32	Picosecond-laser bulk modification induced enhancement of nitrogen-vacancy luminescence in diamond. Journal of the Optical Society of America B: Optical Physics, 2016, 33, B49.	0.9	15
33	Optical properties and charge transfer effects in single-walled carbon nanotubes filled with functionalized adamantane molecules. Carbon, 2016, 109, 87-97.	5.4	15
34	Hydrophobic diamond films. Protection of Metals and Physical Chemistry of Surfaces, 2013, 49, 325-331.	0.3	14
35	Generation of negative pressures and spallation phenomena in diamond exposed to a picosecond laser pulse. Quantum Electronics, 2014, 44, 530-534.	0.3	14
36	Raman Scattering in Natural Diamond Crystals Implanted with High-Energy Ions and Irradiated with Fast Neutrons. Journal of Applied Spectroscopy, 2015, 81, 969-977.	0.3	13

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37	2D inverse periodic opal structures in single crystal diamond with incorporated silicon-vacancy color centers. Diamond and Related Materials, 2017, 73, 204-209.	1.8	13
38	Metastable carbon allotropes in picosecond-laser-modified diamond. Applied Physics A: Materials Science and Processing, 2014, 116, 545-554.	1.1	12
39	Photoluminescence Spectra of the 580-nm Center in Irradiated Diamonds. Journal of Applied Spectroscopy, 2019, 86, 597-605.	0.3	12
40	Probing the Nanostructure of Neutron-Irradiated Diamond Using Raman Spectroscopy. Nanomaterials, 2020, 10, 1166.	1.9	12
41	Growth of single-crystal diamonds in microwave plasma. Plasma Physics Reports, 2012, 38, 1113-1118.	0.3	11
42	Use of Optical Spectroscopy Methods to Determine the Solubility Limit for Nitrogen in Diamond Single Crystals Synthesized by Chemical Vapor Deposition. Journal of Applied Spectroscopy, 2015, 82, 242-247.	0.3	11
43	Growth of CVD diamond nanopillars with imbedded silicon-vacancy color centers. Optical Materials, 2016, 61, 25-29.	1.7	11
44	Thermal conductivity of free-standing CVD diamond films by growing on both nuclear and growth sides. Diamond and Related Materials, 2017, 76, 9-13.	1.8	11
45	Raman Scattering in a Diamond Crystal Implanted by High-Energy Nickel Ions. Journal of Applied Spectroscopy, 2013, 80, 715-720.	0.3	10
46	Photoluminescence of siliconâ€vacancy defects in nanodiamonds of different chondrites. Meteoritics and Planetary Science, 2015, 50, 1005-1012.	0.7	9
47	Water at the grapheneâ€“substrate interface: interaction with short laser pulses. Quantum Electronics, 2015, 45, 1166-1170.	0.3	9
48	Effect of crystal structure on the tribological properties of diamond coatings on hard-alloy cutting tools. Journal of Friction and Wear, 2017, 38, 252-258.	0.1	8
49	Growth of three-dimensional diamond mosaics by microwave plasma-assisted chemical vapor deposition. CrystEngComm, 2018, 20, 198-203.	1.3	8
50	Measuring the Local Thickness of Laserâ€Induced Graphitized Layer on Diamond Surface by Raman Spectroscopy. Physica Status Solidi (B): Basic Research, 2019, 256, 1800686.	0.7	8
51	Photoconductive terahertz generation in nitrogen-doped single-crystal diamond. Optics Letters, 2022, 47, 86.	1.7	8
52	Structural and electrophysical properties of femtosecond laser exposed hydrogenated amorphous silicon films. , 2012, , .		7
53	Photonic crystals of diamond spheres with the opal structure. Physics of the Solid State, 2013, 55, 1120-1123.	0.2	7
54	Photoluminescence of Si-vacancy color centers in diamond films grown in microwave plasma in methane-hydrogen-silane mixtures. Bulletin of the Lebedev Physics Institute, 2014, 41, 359-363.	0.1	7

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55	Anomalous enhancement of nanodiamond luminescence upon heating. Laser Physics Letters, 2017, 14, 025702.	0.6	7
56	Evolution of surface relief of epitaxial diamond films upon growth resumption by microwave plasma chemical vapor deposition. CrystEngComm, 2020, 22, 2138-2146.	1.3	7
57	Efficiency of Photoconductive Terahertz Generation in Nitrogen-Doped Diamonds. Photonics, 2022, 9, 18.	0.9	7
58	Semiconductor properties of nanocrystalline diamond electrodes. Russian Journal of Electrochemistry, 2014, 50, 101-107.	0.3	6
59	Strength of synthetic diamonds under tensile stresses produced by picosecond laser action. Journal of Applied Mechanics and Technical Physics, 2015, 56, 143-149.	0.1	6
60	Observation of the "Red Edge" Effect in the Luminescence of Water Suspensions of Detonation Nanodiamonds. Journal of Applied Spectroscopy, 2016, 83, 294-297.	0.3	5
61	Laser induced modification of mechanical properties of nanostructures: grapheneâ€“water adsorbateâ€“substrate. Laser Physics, 2016, 26, 084002.	0.6	5
62	Effect of laser radiation parameters on the conductivity of structures produced on the polycrystalline diamond surface. Bulletin of the Lebedev Physics Institute, 2017, 44, 246-248.	0.1	5
63	Epitaxial growth of 3C-SiC film by microwave plasma chemical vapor deposition in H2-CH4-SiH4 mixtures: Optical emission spectroscopy study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 023002.	0.9	5
64	Color Centers in Silic On-Doped Diamond Films. Journal of Applied Spectroscopy, 2016, 83, 229-233.	0.3	4
65	X-ray diffraction characterization of epitaxial CVD diamond films with natural and isotopically modified compositions. Crystallography Reports, 2016, 61, 979-986.	0.1	4
66	Effect of neutron irradiation on the hydrogen state in CVD diamond films. Journal of Physics: Conference Series, 2018, 1135, 012019.	0.3	4
67	Features of the 1640 cm^{âˆ’1} band in the Raman spectra of radiation-damaged and nano-sized diamonds. Journal of Physics: Conference Series, 2019, 1400, 044017.	0.3	4
68	Optical and paramagnetic properties of polycrystalline CVD-diamonds implanted with deuterium ions. Journal of Applied Spectroscopy, 2012, 79, 600-609.	0.3	3
69	Experimental investigation into polycrystalline and single-crystal diamonds under negative pressures formed by picosecond laser pulses. Doklady Physics, 2014, 59, 309-312.	0.2	3
70	Application of Raman Spectroscopy for Analyzing Diamond Coatings on a Hard Alloy. Journal of Applied Spectroscopy, 2017, 84, 312-318.	0.3	3
71	Stimulation of the diamond nucleation on silicon substrates with a layer of a polymeric precursor in deposition of diamond films by microwave plasma. Journal of Superhard Materials, 2012, 34, 37-43.	0.5	2
72	Fabrication of graphene nanostructures by probe nanoablation. Bulletin of the Lebedev Physics Institute, 2012, 39, 330-333.	0.1	2

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73	CVD-diamond 13C: A new SRS-active crystal. Doklady Physics, 2015, 60, 529-532.	0.2	2
74	Growth of nano-crystalline diamond on single-crystalline diamond by CVD method. Bulletin of the Lebedev Physics Institute, 2016, 43, 378-381.	0.1	2
75	Hardness of single-crystal CVD diamond and phase transformations in it on indentation. Journal of Superhard Materials, 2014, 36, 297-302.	0.5	1
76	Synthesis and doping of microcolumn diamond photoemitters with silicon-vacancy color centers. Bulletin of the Lebedev Physics Institute, 2015, 42, 63-66.	0.1	1
77	Fluorescence and Raman Spectroscopy of Doped Nanodiamonds. Journal of Applied Spectroscopy, 2018, 85, 295-299.	0.3	1
78	Effect of Diamond Grain Orientation on the Local Conductivity of Laser-Induced Graphitized Surface Layer. Bulletin of the Lebedev Physics Institute, 2019, 46, 13-15.	0.1	1
79	Transformations of fast neutron-irradiated diamonds under femtosecond laser radiation. Journal of Physics: Conference Series, 2022, 2227, 012001.	0.3	1
80	Engineering of defects in fast neutron irradiated synthetic diamonds. Journal of Physics: Conference Series, 2021, 2103, 012076.	0.3	1
81	Investigation of Antiadhesion Coatings for the Sag Bending of Silicate Glass. Glass Physics and Chemistry, 2018, 44, 402-411.	0.2	0
82	10.1007/s11453-008-2012-y. , 2010, 42, 192.		0
83	Study of color centers in radiation-modified diamonds. Journal of Physics: Conference Series, 2021, 2103, 012223.	0.3	0